# Statement of Basis - Narrative Title V Permit

**Type of Permit Action:** Renewal

**Facility: Chaco Gas Plant** 

Company: Enterprise Field Services, LLC **Permit No(s).**: 1555-M5R5 and P116-R2 **Tempo/IDEA ID No.**: 1148 - PRT20130003

**Permit Writer:** Daren K. Zigich

Pe	<b>Date to Enforcement:</b> 1/15/15	Inspector Reviewing: Sondra Sage
rmi	<b>Date Enf. Review Completed: 2/9/15</b>	Date of Reply: (if necessary)
it R	<b>Date to Applicant:</b> 1/15/15	Date of Reply: 2/6/15
evie	<b>Date of Comments from EPA:</b> N/A	<b>Date to EPA:</b> 1/15/15
W	<b>Date to Supervisor:</b> Final – 3/6/15	

#### 1.0 **Plant Process Description:**

Chaco Natural Gas Processing Plant is a natural gas processing plant and compressor station. The facility receives field natural gas via pipeline, compresses the gas, and cryogenically separates methane (residue gas) from gas liquids. Residue and liquids are transported from the facility by pipeline.

#### 2.0 **Description of this Modification:**

This application is for a Title V renewal, submitted pursuant to 20.2.70.300.B NMAC. This renewal incorporates the changes included in the Title V modification submitted in November 2012. The modification integrated a NSR significant revision and administrative revision. The significant revision incorporated actual and existing total dissolved solids in the cooling tower makeup water into the emission calculation, thereby changing the TSP, PM10 and PM2.5 emission rates; this revision also included flare SSM calculations. The administrative revision resulted in the removal of TK-4, TK-50, TK-51 and TK-56. TK-4 was replaced by TK-49. A new insignificant activity was also included in this revision: AMINESUMP. This is a 9.5-bbl tank that stores MDEA and water.

A number of administrative changes have been included in this application. Table 1 of the application details these changes. In addition to the changes detailed in Table 1 of the application, the benzene emission rate for the facility has been updated to include all emission units expected to emit this HAP. In previous applications, benzene emissions were not listed for the following units: 48, 49, 50, 51a, TK28, TK29, F-001, F-004, F-005, F-006, BT1-4 and TRUCK. HAP emission have also been added for Unit 30; in previous

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applications, these emission rates were not included. Though there are minor changes to the speciated HAP emission rates in this application, it does not increase total HAP emissions or result in a change of status, as the facility is already a major source of HAP emissions. Emissions at the facility, other than those discussed above and in Table 1 of the application, have been reproduced from previous applications. In addition a number of like-kind engine replacements have occurred and the serial numbers for those units have been updated.

This application also incorporates a change in status of units 47 (portable air compressor) and FP (fire pump). With the recent changes to MACT ZZZZ, these units can no longer be considered insignificant activities. Additionally, these units have been removed from service, which is represented in this application.

An update to the representation of SSM emission has also been made. In previous applications the itemized venting VOC SSM emissions were combined with the malfunction emissions. As outlined by the SSM guidance issued by the NMED AQB on June 7, 2012, in addition to routine and predictable SSM emissions, a facility may also permit up to 10 tons per year, per pollutant, of upset and malfunction emissions. This application has distinguished between these emission rates. A total of 0.8 tons per year of VOC emissions are associated with releases to the atmosphere, as a result of blowdowns and venting of Units 17, 18, scrubbers and engine startup gas. The 10 tons per year of upsets and malfunctions is still being requested, but is listed separately than the routine and predictable venting emissions. This does not result in a change in the total VOC emission rate.

Note: the modification to the SSM/M limits cannot be completed in this Title V renewal action. The facility will pursue future changes to the NSR permit prior to modifying the Title V permit.

#### 3.0 Source Determination:

- 1. The emission sources evaluated include the entire facility.
- 2. Single Source Analysis:
  - A. <u>SIC Code</u>: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? Yes
  - B. <u>Common Ownership or Control:</u> Are the facilities under common ownership or control? Yes
  - C. <u>Contiguous or Adjacent:</u> Are the facilities located on one or more contiguous or adjacent properties? Yes
- 3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes? Yes

#### 4.0 **PSD Applicability:**

Title V action does not determine PSD applicability; see the History Table for a summary of previous PSD applicability determinations. However, this facility is a PSD major source that has never undergone a permitting action for a PSD major modification.

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# 5.0 <u>History (In descending chronological order, showing NSR and TV):</u> \*The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit	Issue				
Number	Date	Action Type	<b>Description of Action (Changes)</b>		
P116R2	03/13/2015	TV Renewal	TV permit renewal, incorporates changes in the facility since issuance of P116-R1 on 7/17/09.		
1555M5R5	10/24/2014	NSR Admin	Like-kind component (combustor) replacement for Unit 35.		
1555M5R4	10/24/2014	NSR Admin	Like-kind component (combustor) replacement for Unit 36.		
1555M5R3	04/10/2014	NSR Admin	Like-kind replacement of Unit 50.		
P116R1M1	Withdrawn	TV Sig Amend	Withdrawn by applicant on June 5, 2013.		
1555M5R2	02/27/2013	NSR Admin	Like-kind component (combustor) replacement for Unit 49.		
1555M5R1	01/29/2013	NSR Admin	Removal of tanks TK-50 and 51, Addition of T-49 to list of regulated		
ISSNISKI	01/2)/2013	NSK Admin	sources, and removal of T-49 and T-56 from exempt activities list.  Like-kind component (combustor) replacement for Unit 37 was not approved.		
1555M5	11/29/2011	NSR Sig Rev	Increase cooling tower TDS, increase fuel sulfur limitation, add truck loading rack.		
1555M4	10/27/2010	NSR Sig Rev	Removal of Units 1-5, inclusion of SSM emissions, inclusion of PM emissions, inclusion of cooling towers, inclusion of evaporation ponds		
P116R1	07/17/2009	TV Renewal	Title V Operating Permit Renewal		
P116M3	09/01/2006	TV Admin	Thermal Oxidizer Particulate Matter Emissions Monitoring (Unit 46)		
			An opacity reading of 20% or less constitutes compliance with the		
			requirements of 20.2.37.202.A NMAC. Opacity shall be measured in		
			accordance with the procedures at 40CFR60, Appendix A, Method 22		
			and shall be made on a quarterly basis.		
P116M2	08/08/2006	TV Sig Mod	Title V Modification, incorporates the new provisions of NSR		
	2/1 7/2007		1555M3R3. Please see description of modifications below.		
1555M3R3	2/16/2006	NSR Tech Rev	This Technical Permit Revision reduced the Callidus Thermal Oxidizer		
			temperature to "No lower than 1300 <sup>0</sup> F". The permit revision also required an initial compliance test on the thermal oxidizer within 60		
			days of the permit revision issuance.		
P116M1	1/7/2005	TV Admin	Title V Operating Permit was modified to change the operator from		
FITOWIT	1/7/2003	I V Admin	GulfTerra to Enterprise Products Operating LP.		
1555M3R2	12/7/2004	NSR Admin	This revision consisted of a merger between GulfTerra and Enterprise		
			Products LP. GulfTerra will continue to be the owner; the operator		
			will be Enterprise Products Operating LP.		
1555M3R1	7/1/2004	NSR Tech Rev	Modified by replacing the permitted 10.7 MMbtu/hr glycol dehydrator		
			boiler with a 5.22 MMbtu/hr reboiler equipped with two parallel 2.61		
			Mmbtu/hr burners		
1555M3	5/20/2004	NSR Sig Rev	Modification consisted of adding a 7000 horsepower Solar compressor		
			turbine, a 3600 horsepower Caterpillar compressor engine and a 700		
			MMSCF/D glycol dehydrator. As part of this permit modification		
			several large and dirty engines were permanently retired. As a result		
			of the modification, allowable nitrogen oxide emissions were reduced		
			by 2775 tons per year (tpy). NO <sub>x</sub> emission increases prior to PSD		
			netting are significant (>40 TPY). The applicant used netting to make		
D116	11/19/2002	Original TV	the proposed permit modification minor for PSD purposes  Initial Title V Operating Permit was issued		
P116 1555-M2-	11/18/2003 7/14/2003	Original TV NSR Admin	Initial Title V Operating Permit was issued  This revision consists of an ownership change from El Paso Field		
R1	//14/2003	INDIX AUIIIII	Services Co. to GulfTerra Energy Partners LLP with El Paso Field		
13.1			Services remaining as the operator.		
		1	Services remaining as the operator.		

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Permit Number	Issue Date	<b>Action Type</b>	Description of Action (Changes)
1555-M2	10/17/2001	NSR Sig Rev	Retirement of Unit 15, a 550 hP Ingersoll-Rand Compressor. The addition of Unit 48, a 7.68 MMBTU/hr heater (to be fired at 9.6 MMBTU/hr). The inclusion of Tanks 28 and 29 into the permit. These tanks are existing, but have not been included in the permit previously. The correction of the nameplate capacities for Units 17 and 18 from 22,280 to 19,500 hp.
1555-M1- R4	2/27/2001	NSR Admin	Replacement of ignitions control systems on Units Nos. B1, B2, B3 (Units 12, 13, 14).
1555-M1- R3	8/25/2000	NSR Admin	Identical Engine Replacement for Unit No. AC1 (Unit 29)
1555-M1- R2	Not issued	N/A	
1555-M1- R1	11/13/1998	NSR Admin	Replacement of Thermal Oxidizer Unit No. TO (Unit 46) with a Callidus Thermal Oxidizer.
1555-M1	12/26/1995	NSR Sig Rev	Install turbine Cryo 3-2 (Unit 37), install engine Cryo 3-1 (Unit 33); retrofit engines A4 (Unit 4), B1, B2, B3 (Units 12, 13, 14), Replace bio-treatment unit with thermal oxidizer TO (Unit 46); Replace Bisti #8 (Unit 34); Retire Units Nos. ROHA1, ROHA2, RCMA1, and RCMA2; Install oil/water seps. OW1 and OW2 (Units 38 and 39); Install tank heaters TKHTR1, TKHTR2, TKHTR3 (Units 40, 41, 45); and an emergency flare (Unit ?44). Engines Cryo 3-1, A4, B1, B2, B3, and Bisti #8 will have specified emission control systems.
1555	2/27/1995	Original NSR	Retrofit Unit A2 (Unit 2); Replace engines A8 and A11 (Units 8 and 11); Install turbine FRM5B (Unit 30); Install engines CAT1 and CAT2 (Units 31 and 32); Install turbines Mars1 and Mars2 (Units 35 and 36); Engines A2, A8, A11, Cat1 and Cat2 will have Catalytic Converters. The above units support a 400 MMSCF/D cryogenic liquids extraction plant expansion and a 200 MMSCF/D residue gas plant.

6.0 <u>Public Response/Concerns:</u> As of issuance of this permit writer is aware of 2 public comments or concerns. The public comment from Mr. Green involves concerns over greenhouse gas (GHG) emissions. This permit writer informed Mr. Green verbally, prior to his comment of February 15, 2015, that the US Supreme Court vacated EPA's tailoring rule and therefore the NM AQB has no jurisdiction over permitting GHG emissions. Mr. Green's comment also included a request for a public hearing. See Section 16.0 for discussion regarding the public hearing request.

The second comment comes from the Affected Party, Southern Ute Tribe in southwestern Colorado. They raise the issue over the previous modeling analysis that showed non-compliance with the annual NOx NAAQS and the lack of modeling compliance with the 1-hour NOx NAAQS. Their concern is that a source exceeding the NAAQS located in close proximity to their lands may impact the Tribe's efforts to improve air quality within the reservation air shed.

These comments were submitted to EPA Region 6.

AQB issued a response to both commenters on March 16, 2015, along with a notification of final action informing them of their rights to appeal the permit to the NM EIB or petition the permit to USEPA. These letters can be found in the TEMPO database under

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this permitting action.

## 7.0 **Compliance Testing:**

Unit No.	Test Description	Test Date
8	EPA Method	May 1995
o	EFA Method	August 1997
		January 2010
8	Portable Analyzer NOx & CO	May 2011
		October 2012
11	EPA Method	August 1996
		January 2010
11	Portable Analyzer NOx & CO	October 2011
		October 2012
12	EPA Method	May 1995
12	El A Method	August 1996
		February 2010
12	Portable Analyzer NOx & CO	February 2011
		February 2012
13	EPA Method	May 1995
13	Li /i Wethou	August 1996
		February 2010
13	Portable Analyzer NOx & CO	October 2011
		July 2012
14	EPA Method	May 1995
1 1	El II Wellou	August 1996
		February 2010
14	Portable Analyzer NOx & CO	April 2011
		February 2012
17	EPA Method	May 1995
		February 2010
17	Portable Analyzer NOx & CO	February 2011
		February 2012
18	EPA Method	May 1995
		February 2010
18	Portable Analyzer NOx & CO	February 2011
		February 2012
32	EPA Method	August 1996
	D	February 2010
32	Portable Analyzer NOx & CO	October 2011
	7774.76.4.4	October 2012
33	EPA Method	August 1996
		February 2010
33	Portable Analyzer NOx & CO	October 2011
	7774.76.4.4	July 2012
34	EPA Method	August 1996

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January 2010
October 2012   35
January 2010
35 Portable Analyzer NOx & CO  36 EPA Method  36 Portable Analyzer NOx & CO  37 EPA Method  38 Portable Analyzer NOx & CO  39 January 2010  30 March 2011  31 March 2012  32 Portable Analyzer NOx & CO  33 Portable Analyzer NOx & CO  34 Portable Analyzer NOx & CO  45 Pebruary 2010  46 January 2010  57 February 2011
February 2012
36         EPA Method         November 199           36         Portable Analyzer NOx & CO         March 2010           37         EPA Method         November 199           37         Portable Analyzer NOx & CO         January 2010           37         Portable Analyzer NOx & CO         February 2011
January 2010 36 Portable Analyzer NOx & CO March 2011 March 2012 37 EPA Method November 199 January 2010 37 Portable Analyzer NOx & CO February 2011
36 Portable Analyzer NOx & CO March 2011 March 2012  37 EPA Method November 199 January 2010 37 Portable Analyzer NOx & CO February 2011
March 2012 37 EPA Method November 199 January 2010 37 Portable Analyzer NOx & CO February 2011
37 EPA Method November 199  January 2010  37 Portable Analyzer NOx & CO February 2011
January 2010 37 Portable Analyzer NOx & CO February 2011
37 Portable Analyzer NOx & CO February 2011
February 2012
42 EPA Method (are control devices for KKK facilities) January 2010
43 EPA Method (are control devices for KKK facilities) January 2010
44 EPA Method (are control devices for KKK facilities) January 2010
46 EPA Method 06/01/06
02/07/07
48 N/A – Not required
49 EPA Method April 25, 2006
March 2010
49 Portable Analyzer NOx & CO February 2011
March 2012
April 21, 2009
50 EPA Method February 2011
March 2012
March 2010
50 Portable Analyzer NOx & CO October 2011
October 2012
51 N/A – Not required

#### 8.0 Startup and Shutdown:

- A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? Yes
- B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? N/A
- C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? Yes
- D. Were emissions from startup, shutdown, and scheduled maintenance operations calculated and included in the emission tables? Yes
- 9.0 <u>Compliance and Enforcement Status [Title V only]:</u> Per an October 3, 2014 email from Tony Fristachi; there are no outstanding notices of violation or settlement

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agreements for which all actions have not been completed, therefore C&E does not recommend a compliance plan.

#### 10.0 **Modeling:** Air dispersion modeling was completed for

- 1555-M5 10-27-11 TSP, PM10, and PM2.5 demonstrated compliance with standards
- 1555-M4 11-1-10 NOx, CO, SOx, PM10, PM2.5, TSP, and H2S. Applicant's modeling indicated 1-hr NO2 NAAQS, 24-Hr NO2 NMAAQS, annual NO2 NAAQS and NMAAQS were exceeded but other NAAQS and NMAAQS for other pollutants were met. The AQB reviewed and verified these modeling results. NOx emissions are subject to 20.2.72.216 NMAC Nonattainment Area Requirements and the permittee met the required emissions reductions and net air quality benefit to meet these requirements.
- P116-M2 3-12-15, a reanalysis of the NOx modeling from 1555-M4 revealed the following:

#### Annual, 24-hr, and 1-hr NO<sub>2</sub> NAAQS and NMAAQS...

The NMED's 80% 1-hour conversion of NOx to  $NO_2$ , 40% 24-hour conversion of NOx to  $NO_2$  and the 75% annual conversion of NOx to  $NO_2$  from EPA's Ambient Ratio Method (ARM) were applied to calculate concentrations. As shown in Table 3, the annual averaged maximum  $NO_2$  concentration of 55.88  $\mu$ g/m³ shows compliance with the annual NAAQS (99.67  $\mu$ g/m³) and NMAAQS (50 ppb equivalent to 76.38  $\mu$ g/m³).

	Contributing	Averaging	Concentration		Standard		Percent of Standard
Pollutant	Sources	Period	μg/m <sup>3</sup>	ppm	Applicable	Value	or Significance Level
NO <sub>2</sub>	All	annual	55.88	0.037	NAAQS	99.67 μg/m <sup>3</sup>	56.1
NO <sub>2</sub>	Alone	annual	48.62	0.032	NAAQS	99.67 μg/m <sup>3</sup>	100
NO <sub>2</sub>	All	annual	55.88	0.037	NMAAQS	0.05 ppm	74.0
NO <sub>2</sub>	Alone	annual	48.62	0.032	NMAAQS	0.05 ppm	64.0

The facility does not show compliance with the 24-hour NO<sub>2</sub> NMAAQS and the 1-hour NO<sub>2</sub> NAAQS. However, the facility demonstrates net air quality improvement of 49% and 56% for 24-hour and 1-hour NO<sub>2</sub>, respectively, by removing the five natural gas fired reciprocating engines. This benefit was calculated as prescribed in NMED Air Dispersion Modeling Guidelines.

#### Annual NO<sub>2</sub> PSD Class II Increment...

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The NMED's 75% annual conversion of NOx to  $NO_2$  from EPA's Ambient Ratio Method (ARM) was applied to calculate concentrations. The facility does not show compliance with the annual  $NO_2$  PSD Class II Increment even if it demonstrates significant net air quality improvement for annual  $NO_2$  by removing the five engines that results in significant NOx emission reduction.

11.0 <u>State Regulatory Analysis(NMAC/AQCR):</u>

20	Title	Applies	Unit(s) or	Comments
NMAC		(Y/N)	Facility	
2.1	GENERAL PROVISIONS	Yes, Always	Entire Facility	The facility is subject to Title 20 Environmental Protection Chapter 2 Air Quality of the New Mexico Administrative Code so is subject to Part 1 General Provisions, Update to Section 116 of regulation for Significant figures & rounding. Applicable with no permitting requirements.
2.3	Ambient Air Quality Standards	No for TV	Entire Facility	20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. 20.2.3.9 NMAC, LIMITATION OF APPLICABILITY TO 20.2.70 NMAC. The requirements of this part are not applicable requirements under 20.2.70 NMAC, as defined by that part. This section does not limit the applicability of this part to sources required to obtain a permit under 20.2.72 NMAC, nor does it limit which terms and conditions of permits issued pursuant to 20.2.72 NMAC are applicable requirements for permits issued pursuant to 20.2.70 NMAC.
2.7	Excess Emissions	Yes, Always	Entire Facility	Applies to all facilities' sources
2.33	Gas Burning Equipment - Nitrogen Dioxide	No		This facility has no external combustion gas burning equipment with a heat input of greater than 1,000,000 million British Thermal Units per year per unit.  This regulation does not apply to internal combustion units.
2.35	Natural Gas Processing Plant – Sulfur	No		This facility processes sweet natural gas and does not release threshold levels of sulfur.

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20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Comments
2.37	Petroleum Processing Facilities	Yes	Entire Facility	20.2.37.200.A NMAC regulates mercaptan and hydrogen sulfide emissions, and applies because the site is a new petroleum processing facility. Chaco is a sweet gas plant, but low levels of sulfur-containing compounds may be released during the processing of sweet gas. Section 200.A.(2) requires gas streams containing mercaptans pass through a steam condenser and combustion device which is well maintained and designed to complete combustion. The very low levels of incidental sulfur compounds released
				during sweet gas processing at Chaco are routed to a thermal oxidizer for destruction with an emission limit of 0.25 lb/hr.  Gas streams potentially containing sulfur compounds, including mercaptans, are directed to flares. Testing by Enterprise as required by NSR Permit 1555 M3 R1 indicates that mercaptans are not released to the atmosphere.  Subpart 201 Carbon Monoxide: Enterprise understands this requirement as
				applicable to catalyst cracking units and similar devices; the facility does not have a catalyst cracking unit.  20.2.37.202.A NMAC Limits particulate matter emissions from petroleum processing facilities to less than 0.05 grains/dry standard cubic foot. The
				use of natural gas fuel at the Chaco facility constitutes compliance with this requirement.  Subpart 203 Ammonia: There are no sources of ammonia emissions at the facility.  Subpart 204 Hydrocarbon Separation Facility: The facility does not
				produce threshold quantities of crude oil or condensate, or of waste liquor.  20.2.37.205.A NMAC Regulates the storage and handling of organic compounds at petroleum processing facilities. Chaco is in compliance with this regulation because all tanks with a storage capacity greater than 65,000 gallons (TK-28 and TK-29) are equipped with a VRU.
				<ul> <li>The facility does not store organic compounds with vapor pressure greater than 11.0 psi in atmospheric tanks.</li> <li>The facility does not load organic liquids having a Reid vapor pressure greater than 1.5.</li> </ul>
				<b>20.2.37.205.D NMAC</b> Regulates emissions from compressor and pump seals. The facility equipment includes pumps and compressors potentially affected by this regulation.
				<ul> <li>Pumps and compressors meeting the requirements of this subpart are equipped with seals. Pumps and compressors handling liquids with a vapor pressure greater than 1.5 Reid are equipped with appropriate seals</li> </ul>
				20.2.37.205.E NMAC Requires that blowdown be directed to a flare or equivalent device for disposal. The facility is equipped with a blowdown system. Blowdown hydrocarbons required to be destroyed in a smokeless flare.
				This facility is an "existing petroleum processing facility" as defined by 20.2.37.7.B NMAC. However Units 8, 11, 32, 33, 34, 35, 36, 37, 49 and 50 are "new petroleum processing facilities" as defined by 20.2.37.7.C NMAC. Compressors and piping associated with Units 8, 11, 35, 36, 37, 49 and 50 may be vented to atmosphere from time to time. 20.2.37.205.E NMAC requires that blowdown from new units be directed to a flare or equally effective device for disposal of hydrocarbons.  indicated all provisions of this compliance plan have been
				fulfilled.
2.38	Hydrocarbon Storage Facilities	Yes	TK 28 and TK 29	The facility is a petroleum processing facility as defined by 20.2.38 NMAC, and has tanks (TK 28 & 29) meeting the criteria of 20.2.38 NMAC. These tanks are equipped with submerged fill devices in compliance with this regulation.
2.61	Smoke and Visible Emissions	No	All combustion sources	Exempt due to applicability of 20.2.37 NMAC.

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20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Comments
2.70	Operating Permits	Y	Entire Facility	PTE is ≥ 100 TPY, Source is major for NOx, CO, VOCs, Formaldehyde, Acetaldehyde and Total HAPs as defined at 20.2.70.200 NMAC.
				HAPs is ≥ 10 tpy single (Formaldehyde, Acetaldehyde) and 25 tpy total HAPs
2.71	Operating Permit Fees	Y	Entire Facility	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.
2.72	Construction Permits	Y	Entire Facility	NSR permit 1555-M5 are the applicable requirement, including 20.2.72 NMAC.
2.73	NOI & Emissions Inventory Requirements	Yes, Always	Entire Facility	Applicable to all facilities that require a permit.  PER ➤ 10 tpy for a criteria pollutants NOx, CO, VOC, SO2 and PM
2.74	Permits-Prevention of Significant Deterioration	Y	Entire Facility	This facility is not applying for a major modification, but is a major source as defined in 20.2.74 NMAC.
2.75	Construction Permit Fees	N	Entire Facility	In accordance with 20.2.75.11.E an annual NSR enforcement and compliance fee shall not apply to sources subject to 20.2.71 NMAC.
2.77	New Source Performance	Yes	sources subject to 40 CFR 60	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60, and 40 CFR 60 Subparts A, GG and KKK apply.
2.78	Emissions Standards for HAPs	No	Fugitive sources in VHAP service	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61. Portions of the plant are applicable to 40 CFR 63 Subpart HH which references requirement in Subpart V. However, this source is not subject to 40 CFR 61, Subpart V.
2.82	MACT Standards for Source Categories of HAPs	Yes	source subject to 40 CFR 63	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63, MACT HH, ZZZZ and DDDDD apply to this facility.

## 12.0 <u>Federal Regulatory Analysis:</u>

Air Programs Subchapter C (40 CFR 50)	National Primary and Secondary Ambient Air Quality Standards	Applies (Y/N)	Unit(s) or Facility	Comments
С	Federal Ambient Air Quality Standards	Yes	facility	Independent of permit applicability; applies to all sources of emissions for which there is a Federal Ambient Air Quality Standard.

NSPS Subpart	Title	Applies	Unit(s) or	Comments
(40 CFR 60)		(Y/N)	Facility	Comments

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NSPS Subpart (40 CFR 60)	Title	Applies (Y/N)	Unit(s) or Facility	Comments
A	General Provisions	Yes	See sources subject to 40 CFR 60 Subparts GG and KKK	Applies if any other subpart applies and GG and KKK apply.
40 CFR 60.40b, Subpart Dc	Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units	No	No steam generating units that meet applicable criteria	Applicable: facility has steam generating units for which construction, modification or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).
40 CFR 60, Subpart Kb	Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced <b>After</b> July 23, 1984	No		Tanks TK28 and TK29 have a storage capacity greater than 151,416 liters (40,000 gallons) that are used to store petroleum liquids for which construction is commenced after July 23, 1984. Per §60.110b(d)(4), this regulation is not applicable because the tanks are used for petroleum or condensate stored, processed, or treated prior to custody transfer. Therefore, they are not affected facilities and are exempt from the requirements of this subpart.
40 CFR 60.330 Subpart GG	Stationary Gas Turbines	Yes	35, 36, 37, 49	Units 35,36, and 37 have a heat input = 116 MMBtu/hour, and Unit 49 has a heat input = 54.4 MMBtu/hr, which are greater than the 10 MMBtu/hour threshold. These units were installed in 1996 (Units 35,36,37) and 2003 (Unit 49) which are after the October 3, 1977 applicability date and before the applicability date of February 18, 2005, for Subpart KKKK.
40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	No		All gas turbine units manufactured and installed before the applicability date of February 18, 2005.
40 CFR 60, Subpart KKK	Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	Yes	8, 11, 17, 18, 32, 33, 34, 42, 43, 44, 50, 51, Cryo Plant, E-Plant compresso r, F-001, F-002, F-003, F-004,	paragraph (a) of this section that commences

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NSPS Subpart (40 CFR 60)	Title	Applies (Y/N)	Unit(s) or Facility	Comments
			F-005, F-006, F-008 and F-009	dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.
40 CFR Part 60 Subpart LLL	Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions	No		The facility's MDEA unit is in liquid service and does not meet the definition of sweetening unit as defined at §60.641.
40 CFR Part 60 Subpart IIII (Quad-I)	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	No		The single CI-RICE located at this facility (Unit 30) was constructed in 12/2005 and therefore manufactured before the April 1, 2006 applicability date.
40 CFR Part 60 Subpart JJJJ (Quad -J)	Standards of Performance for Stationary Spark. Ignition Internal Combustion Engines	No		The only newer SI-RICE at the facility is Unit 50 (3550 hp), and was constructed in 2005 and therefore manufactured before the applicability date of June 12, 2006.
NSPS 40 CFR Part 60 Subpart OOOO (Quad -O)	Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution	No		The rule applies to "affected" facilities that are constructed, modified, or reconstructed after Aug 23, 2011 (40 CFR 60.5365): No equipment subject to this regulation was constructed modified, or reconstructed after Aug 23, 2011.

NESHAP Subpart	Title	Applies (Y/N)	Unit(s) or Facility	Comments
(40 CFR 61)			-	
A	General Provisions	No		Applies if any other subpart applies and no other
				subpart applies.
40 CFR 61	National Emission Standards	No		Portions are applicable by reference according to
Subpart V	for Equipment Leaks			40 CFR 63.769, but entire regulation is not
	(Fugitive Emission Sources)			applicable.

MACT Subpart (40 CFR 63)	Title	Applies (Y/N)	Unit(s) or Facility	Comments
A	General Provisions	Yes	See sources subject to 40 CFR 63 Subparts HH, ZZZZ, and DDDDD	Applies if any other subpart applies and subparts HH, ZZZZ and DDDDD apply.

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MACT Subpart (40 CFR 63)	Title	Applies (Y/N)	Unit(s) or Facility	Comments
40 CFR 63.760 Subpart HH	Oil and Natural Gas Production Facilities –	Yes	51b, F- 005 and F-009	MAJOR Source: In accordance with the definition of a major source as defined in 40 CFR 63.761, this facility is Subject to the requirements of 40 CFR 63 Subpart HH Facility was major for HAPS after June 17, 2002. Once in always in.
40 CFR 63 Subpart ZZZZ (Quad Z)	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)	Yes	30	Unit 30 is subject to Subpart ZZZZ as an existing CI-RICE < 500 hp located at a major source of HAPs. The Facility considers this standby air compressor engine, and emergency RICE subject to the maintenance requirements
40 CFR 63 Subpart DDDDD (5-Ds)	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	Yes	48 and 51a	Facility is subject to this subpart if it owns or operates an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP. Both units are subject to the Work practice standards (tune-ups) specified in §63.7540(a)(11).
40 CFR 63 Subpart CCCCCC (6-Cs)	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities	No		§ 63.11111 Am I subject to the requirements in this subpart?  (a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.  Facility is not an area source of HAPs and thus
				this regulation does not apply.

Miscellaneous	Title	Applies (Y/N)	Unit(s) or Facility	Comments
40 CFR 64	Compliance Assurance Monitoring	No		The facility has no CAM-affected Units.
40 CFR 68	Chemical Accident Prevention	Yes		Chaco Gas Plant is subject to 40 CFR 68 because it handles greater than threshold quantities of certain flammable substances (condensate).
40 CFR 70	Title V- State Operating Permit Programs	No		Operating Permit Program – is not applicable – New Mexico State has full delegated authority and Title V is administered under 20.2.70 NMAC.
40 CFR 72	Title IV – Acid Rain	No		The facility is not subject to 40 CFR 72 because it is not an Acid Rain Source.

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Miscellaneous	Title	Applies (Y/N)	Unit(s) or Facility	Comments
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	No		Not Applicable –facility does not "service", "maintain" or "repair" class I or class II appliances nor "disposes" of the appliances.  Note: Disposal definition in 82.152: Disposal means the process leading to and including: (1) The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water; (2) The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water; or (3) The disassembly of any appliance for reuse of its component parts. "Major maintenance, service, or repair means" any maintenance, service, or repair that involves the removal of any or all of the following.
				the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of "flow area" for more than 15 minutes.

### 13.0 Exempt and/or Insignificant Equipment that do not require monitoring:

Title V - INSIGNIFICANT ACTIVITIES (Dated March 24, 2005) as defined by 20.2.70.7.P NMAC:

Unit Number	Source Description	Manufacturer	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction2
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Installation /Construction2
TK 1	Fleet refueling	Unknown	Unknown	24	N/A	Pre-2011
			Unknown	bbl	IA List Item #8	Pre-2011
TK 3	Non-exempt water	Unknown	Unknown	1000	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 5	Methanol	Unknown	Unknown	2	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK8a,b,c	54GO	Unknown	Unknown	4	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 10	Lube Oil	Unknown	Unknown	210	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011

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TK 11	Lube Oil	Unknown	Unknown	80	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 12	Lube Oil	Unknown	Unknown	208	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 13	Diesel Fuel	Unknown	Unknown	24	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 21	Methanol	Unknown	Unknown	12	N/A	Pre-2011
			Unknown	bbl	IA List Item #1a	Pre-2011
TK 22	Used Oil	Unknown	Unknown	500	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 23a, b, c	Used Oil	Unknown	Unknown	24	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 30	Lube Oil	Unknown	Unknown	12	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 31	Lube Oil	Unknown	Unknown	12	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 32a, b, c	Lube Oil	Unknown	Unknown	208	N/A	1957
			Unknown	bbl	IA List Item #5	1957
TK 34	Lube Oil	Unknown	Unknown	107	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 37a, b	Lube Oil	Unknown	Unknown	8	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 38	Diesel Fuel	Unknown	Unknown	12	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 39	Solvent	Unknown	Unknown	12	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 46	Used Oil	Unknown	Unknown	24	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
TK 47	Oil / Water Separator	Unknown	Unknown	24	N/A	Pre-2011
			Unknown	bbl	IA List Item #5	Pre-2011
AMINESUMP	MDEA, Water	Unknown	Unknown	9.5	N/A	Pre-2011
			Unknown	bbl	IA List Item #1a	Pre-2011
Tanks	Misc. tanks that are not sources of regulated pollutants	See Tables 2- K and 2-I	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A

## 14.0 <u>New/Modified/Unique Conditions</u> (Format: Condition#: Explanation):

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A. See Section 15 below for changes or additions to existing NSR permit 1555-M5 invoked by this permitting action.

## 15.0 For Title V action: Cross Reference Table between NSR Permit 1555-M5 and TV Permit P116-R2.

Changed by TV*	NSR Condition #	TV Section #
	A100 Introduction	A100 Introduction
	A101 Permit Duration	A101 Permit Duration
	A102 Facility Description	A102 Facility Description
	Table 102.A Total Potential Emissions	Table 102.A Total Potential Emissions
	A103 Facility: Applicable Regulations	A103 Facility: Applicable Regulations
	A104 Facility: Regulated Sources	A104 Facility: Regulated Sources – Updated to incorporate admin amendments -M5R1, R2, R3, R4 and R5.
	A105 Facility: Control Equipment	A105 Facility: Control Equipment
	A106 Facility: Allowable Emissions	A106 Facility: Allowable Emissions
	A107 Facility: Allowable SSM	A107 Facility: Allowable SSM
X	A107 Facility: Allowable SSM	A107.C, D and E SSM – small changes to
		accommodate citation changes in other conditions
		and to incorporate latest template language for SSM and to incorporate C&E section comments.
X	A108 Facility: Hours of Operations	A108 Facility: Hours of Operations, added clarification that Unit 30 has limited hours.
X	A109 Facility: Reporting Schedules NR for NSR	A109 Facility: Reporting Schedules
X		A109.A TV Semi-Annual
X		A109.B TV ACC
	A110 Facility: Fuel Sulfur Requirements	A110 Facility: Fuel Sulfur Requirements
	A111 Facility: 20.2.37, Particulate Matter	A112 Facility: 20.2.37, Particulate Matter
X	A112 Facility Inlet	Removed and moved to A107.E
X		A201.A Engines: Maintenance and Repair Monitoring (Units 8, 11-14, 30, 32-34, and 50) – added per current monitoring protocol.
X	A201.A Engines: Hours of Operation (Unit 30)	A201.B Engines: Hours of Operation (Unit 30)
X	A201.B Periodic Emissions Testing (Units 8, 11-14, 32-34, and 50)	A201.C Periodic Emissions Testing (Units 8, 11-14, 32-34, and 50) – modified slightly to incorporate new language.
X	A201.C Periodic Emissions Testing	A201.D Periodic Emissions Testing (Unit 30) –
	(Unit 30)	modified slightly to incorporate new language.

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Changed by TV*	NSR Condition #	TV Section #
X	A201.D Catalytic Converter Operation (Units 8, 11, 13, 32, 33, 34, 50)	A201.E Catalytic Converter Operation (Units 8, 11, 13, 32, 33, 34, 50) – No language change just condition number
X		A201.F MACT ZZZZ (Unit 30) – added in this permit action.
	A202 Glycol Dehydrator	A202 Glycol Dehydrator
	A202.A Operational Inspection (Unit 51a and b)	A202.A Operational Inspection (Unit 51a and b)
	A202.B 40 CFR 63 Subpart HH (Unit 51b)	A202.B 40 CFR 63 Subpart HH (Unit 51b)
	A202.C Glycol Dehydrator Still Vent Composition and Heating Value (Unit 51b)	A202.C Glycol Dehydrator Still Vent Composition and Heating Value (Unit 51b)
	A203.A Tanks Throughput (Units TK-28 and 29)	A203.A Tanks Throughput (Units TK-28 and 29)
X	A203.B Operational Inspection: Flash Emissions VRU	A203.B Operational Inspection: Flash Emissions VRU – modified language slightly
X	A203.C Tank Throughput (Ballard Tanks, Units BT-1, 2, 3, 4)	A203.C Tank Throughput (Ballard Tanks, Units BT-1, 2, 3, 4) –revised language to latest monitoring protocol
X	A203.D Condensate/Produced Water Loadout (Ballard Tanks, Units BT-1, 2, 3, 4)	A203.D Condensate/Produced Water Loadout (Ballard Tanks, Units BT-1, 2, 3, 4) - Deleted, no associated emissions limits.
X	A203.E Truck Loading Fugitive Emissions (Unit L-01)	A203.E Truck Loading Fugitive Emissions (Unit TRUCK) – revised unit number and monthly rolling 12-month total
X	A211.A Tank Throughput (Ballard Tanks, Units BT-1, 2, 3, 4)	A203.F Tank Throughput (Ballard Tanks, Units BT-1, 2, 3, 4) – moved condition to A203 and revised language to latest monitoring protocol
X		A204.A 40 CFR 63 Subpart DDDDD (Units 48 and 51a) – added to reflect new applicable requirement
X	A204.A Heater Operational Inspection (Units 48 and 51a)	A204.B Heater Operational Inspection (Unit 48 and 51a) – moved to A204.B, slight language change.
	A205 Turbines	A205 Turbines
X		A205.A Maintenance and repair monitoring (units 17, 18, 35, 36, 37 and 49) – new to match new monitoring protocol
	A205.A Periodic Emissions Tests (Units 17, 18, 35, 36, 37 and 49)	A205.B Periodic Emissions Tests (Units 17, 18, 35, 36, 37 and 49)
	A205.B 40 CFR 60, Subpart GG (Units 35, 36, 37 and 49)	A205.C 40 CFR 60, Subpart GG (Units 35, 36, 37 and 49)

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Changed by TV*	NSR Condition #	TV Section #
	A206 Flares	A206 Flares
	A206.A Flare Operation (Units 42/43)	A206.A Flare Operation (Units 42/43)
	A206.B Flare Operation (Unit 44)	A206.B Flare Operation (Unit 44)
X	A206.C Facility Blowdown System (Unit 42/43 and 44)	A206.C Facility Blowdown System (Unit 42/43 and 44) – Modified to accommodate C&E comments
X	A206.D 40 CFR 60, Subpart A: Performance Demonstration (Units 42/43 and 44)	Deleted – Already Completed by permittee
X	A206.E Ongoing Flare NSPS Subpart A/MACT Subpart A Compliance: Flowrate CMS and Mean Net Heating Value (Units 42/43 and 44)	A206.D Ongoing Flare NSPS Subpart A/MACT Subpart A Compliance: Flowrate CMS and Mean Net Heating Value (Units 42/43 and 44) – Modified to accommodate permittee comments
X	A206.F Flare Steady-State Emission Limits (Units 42/43 and 44)	A206.E Flare Steady-State Emission Limits (Units 42/43 and 44) – modified to remove reference to SSM events to clarify that steady state recordkeeping is for all times.
	A207 Sulfur Recovery Unit - NR	A207 Sulfur Recovery Unit - NR
	A208.A Amine Unit Operational	A208.A Amine Unit Operational Inspection Unit
	Inspection Unit (AM-01)	(AM-01)
	A208.B Amine Unit Flash Tank Vent Composition and Heating Value (Unit AM-01)	A208.B Amine Unit Flash Tank Vent Composition and Heating Value (Unit AM-01)
	A209 Fugitives	
X	A209.A LDAR for non-NSPS KKK or MACT HH equipment	A209.A LDAR for non-NSPS KKK or MACT HH equipment – updated equipment list and modified Requirement section to accommodate permittee comments
X	A209.B LDAR for NSPS KKK equipment	A209.B LDAR for NSPS KKK equipment – updated monitoring protocol and equipment listing
X	A209.B LDAR for MACT HH VHAP equipment	A209.B LDAR for MACT HH VHAP equipment – updated equipment list
	A210 Cooling Towers	A210 Cooling Towers
X	A210.A Units CT-B and CT-C	A210.A Units CT-B and CT-C – updated monitoring requirement to clarify that sampling (TDS or conductivity) is monthly and that correlation testing is a one-time event.
X	A211 Ballard Tanks	Deleted and moved to A203 Tanks
X	A212 Thermal Oxidizer A212.A Periodic Emission Testing	A211 Thermal Oxidizer A211.A Periodic Emission Testing (Unit 46)
X	(Unit 46) A212.B Operational Inspection (Unit	A211.B Operational Inspection (Unit 46) –

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Changed by TV*	NSR Condition #	TV Section #
	46)	moved temperature limit from Monitoring to
		Requirement and revised Requirement,
		Monitoring and Recordkeeping language to
		accommodate permittee comments.
X	A212.C Acid Gas Extended Analysis	A211.C Acid Gas Extended Analysis (Unit 46) –
	(Unit 46)	small wording changes
X	A212.D Acid Gas Flow Rate	A211.D Acid Gas Flow Rate Monitoring (Unit
	Monitoring (Unit 46)	46)
X	Part B General Conditions	Part B General Conditions, entire Section
		updated

NSR conditions identified as "NSR Unique" do not establish any applicable requirements or federally enforceable conditions that require adoption in the TV operating permits.

Notes: \* TV staff will indicate by entering a "X" if the original NSR permit condition was modified or replaced for the purpose of clarification, typographical correction or due to increased stringency.

NSR staff will review the previous Title V permit for the so marked conditions and incorporate into any new NSR permit.

- 16.0 Permit specialist's notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.
  - A. Due to Mr. Green's request for a public hearing, AQB forwarded a Hearing Recommendation Request Memo to the EPD division director on March 12, 2015, suggesting that a public hearing was not necessary based on the comments received. The director concurred on March 13, 2015 that a public hearing was NOT required. All documentation associated with the negative hearing determination is included in TEMPO under this permitting action (P116-R2).

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